

RAW SEQUENCE LISTING

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Application Serial Number: 10/520,820
Source: PCT
Date Processed by STIC: 08/22/2005

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PCT

RAW SEQUENCE LISTING

DATE: 08/22/2005

PATENT APPLICATION: US/10/520,820

TIME: 17:06:40

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\08222005\J520820.raw

3 <110> APPLICANT: MUTABILIS S.A.

W--> 4 <120> TITLE OF INVENTION: Pathogenicity determinants which can be used as targets for developing

W--> 5 means for preventing and controlling bacterial infections and/or systemic

W--> 6 dissemination

9 <130> FILE REFERENCE: 1621

11 <140> CURRENT APPLICATION NUMBER: 10/520,820

C--> 12 <141> CURRENT FILING DATE: 2005-01-07

14 <150> PRIOR APPLICATION NUMBER: PCT/EP2003/008209

15 <151> PRIOR FILING DATE: 2003-07-09

17 <150> PRIOR APPLICATION NUMBER: FR 0208636

18 <151> PRIOR FILING DATE: 2002-07-09

20 <160> NUMBER OF SEQ ID NOS: 32

22 <170> SOFTWARE: PatentIn version 3.1

24 <210> SEQ ID NO: 1

25 <211> LENGTH: 305

26 <212> TYPE: PRT

27 <213> ORGANISM: Escherichia coli

30 <400> SEQUENCE: 1

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35 Trp Val Val Glu Glu Gly Phe Ala Gln Ile Pro Ser Trp His Ala Ala

36 20 25 30

39 Val Glu Arg Val Ile Pro Val Ala Ile Arg Arg Trp Arg Lys Ala Trp

40 35 40 45

43 Phe Ser Ala Pro Ile Lys Ala Glu Arg Lys Ala Phe Arg Glu Ala Leu

44 50 55 60

47 Gln Ala Glu Asn Tyr Asp Ala Val Ile Asp Ala Gln Gly Leu Val Lys

48 65 70 75 80

51 Ser Ala Ala Leu Val Thr Arg Leu Ala His Gly Val Lys His Gly Leu

52 85 90 95

55 Asp Trp Gln Thr Ala Arg Glu Pro Leu Ala Ser Leu Phe Tyr Asn Cys

56 100 105 110

59 Lys His His Ile Ala Lys Gln Gln His Ala Val Glu Arg Thr Arg Glu

60 115 120 125

63 Leu Phe Ala Lys Ser Leu Gly Tyr Ser Lys Pro Gln Thr Gln Gly Asp

64 130 135 140

67 Tyr Ala Ile Ala Gln His Phe Leu Thr Asn Leu Pro Thr Asp Ala Gly

68 145 150 155 160

71 Glu Tyr Ala Val Phe Leu His Ala Thr Thr Arg Asp Asp Lys His Trp

72 165 170 175

75 Pro Glu Glu His Trp Arg Glu Leu Ile Gly Leu Leu Ala Asp Ser Gly

76 180 185 190

79 Ile Arg Ile Lys Leu Pro Trp Gly Ala Pro His Glu Glu Glu Arg Ala

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80          195          200          205
83 Lys Arg Leu Ala Glu Gly Phe Ala Tyr Val Glu Val Leu Pro Lys Met
84      210          215          220
87 Ser Leu Glu Gly Val Ala Arg Val Leu Ala Gly Ala Lys Phe Val Val
88 225      230          235          240
91 Ser Val Asp Thr Gly Leu Ser His Leu Thr Ala Ala Leu Asp Arg Pro
92      245          250          255
95 Asn Ile Thr Val Tyr Gly Pro Thr Asp Pro Gly Leu Ile Gly Gly Tyr
96      260          265          270
99 Gly Lys Asn Gln Met Val Cys Arg Ala Pro Gly Asn Glu Leu Ser Gln
100      275          280          285
103 Leu Thr Ala Asn Ala Val Lys Arg Phe Ile Glu Glu Asn Ala Ala Met
104      290          295          300
107 Ile
108 305
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112 <211> LENGTH: 340
113 <212> TYPE: PRT
114 <213> ORGANISM: Escherichia coli
117 <400> SEQUENCE: 2
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123 Leu Lys Lys Asn Tyr Pro Asp Ala Lys Ile Asp Val Leu Leu Tyr Gln
124      20      25      30
127 Asp Thr Ile Pro Ile Leu Ser Glu Asn Pro Glu Ile Asn Ala Leu Tyr
128      35      40      45
131 Gly Ile Lys Asn Lys Lys Ala Lys Ala Ser Glu Lys Ile Ala Asn Phe
132      50      55      60
135 Phe His Leu Ile Lys Val Leu Arg Ala Asn Lys Tyr Asp Leu Ile Val
136 65      70      75      80
139 Asn Leu Thr Asp Gln Trp Met Val Ala Ile Leu Val Arg Leu Leu Asn
140      85      90      95
143 Ala Arg Val Lys Ile Ser Gln Asp Tyr His His Arg Gln Ser Ala Phe
144      100     105     110
147 Trp Arg Lys Ser Phe Thr His Leu Val Pro Leu Gln Gly Gly Asn Val
148      115     120     125
151 Val Glu Ser Asn Leu Ser Val Leu Thr Pro Leu Gly Val Asp Ser Leu
152      130     135     140
155 Val Lys Gln Thr Thr Met Ser Tyr Pro Pro Ala Ser Trp Lys Arg Met
156 145     150     155     160
159 Arg Arg Glu Leu Asp His Ala Gly Val Gly Gln Asn Tyr Val Val Ile
160      165     170     175
163 Gln Pro Thr Ala Arg Gln Ile Phe Lys Cys Trp Asp Asn Ala Lys Phe
164      180     185     190
167 Ser Ala Val Ile Asp Ala Leu His Ala Arg Gly Tyr Glu Val Val Leu
168      195     200     205
171 Thr Ser Gly Pro Asp Lys Asp Asp Leu Ala Cys Val Asn Glu Ile Ala
172      210     215     220
175 Gln Gly Cys Gln Thr Pro Pro Val Thr Ala Leu Ala Gly Lys Val Thr

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176 225          230          235          240
179 Phe Pro Glu Leu Gly Ala Leu Ile Asp His Ala Gln Leu Phe Ile Gly
180          245          250          255
183 Val Asp Ser Ala Pro Ala His Ile Ala Ala Ala Val Asn Thr Pro Leu
184          260          265          270
187 Ile Ser Leu Phe Gly Ala Thr Asp His Ile Phe Trp Arg Pro Trp Ser
188          275          280          285
191 Asn Asn Met Ile Gln Phe Trp Ala Gly Asp Tyr Arg Glu Met Pro Thr
192          290          295          300
195 Arg Asp Gln Arg Asp Arg Asn Glu Met Tyr Leu Ser Val Ile Pro Ala
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199 Ala Asp Val Ile Ala Ala Val Asp Lys Leu Leu Pro Ser Ser Thr Thr
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203 Gly Thr Ser Leu
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208 <211> LENGTH: 265
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210 <213> ORGANISM: Escherichia coli
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219          20          25          30
222 Glu Thr Arg Arg Thr Leu Arg Phe Glu Met Ala Gly Lys Ser Tyr Phe
223          35          40          45
226 Leu Lys Trp His Arg Gly Thr Thr Leu Lys Glu Ile Ile Lys Asn Leu
227          50          55          60
230 Leu Ser Leu Arg Met Pro Val Leu Gly Ala Asp Arg Glu Trp Asn Ala
231 65          70          75          80
234 Ile His Arg Leu Arg Asp Val Gly Val Asp Thr Met Tyr Gly Val Ala
235          85          90          95
238 Phe Gly Glu Lys Gly Met Asn Pro Leu Thr Arg Thr Ser Phe Ile Ile
239          100          105          110
242 Thr Glu Asp Leu Thr Pro Thr Ile Ser Leu Glu Asp Tyr Cys Ala Asp
243          115          120          125
246 Trp Ala Thr Asn Pro Pro Asp Val Arg Val Lys Arg Met Leu Ile Lys
247          130          135          140
250 Arg Val Ala Thr Met Val Arg Asp Met His Ala Ala Gly Ile Asn His
251 145          150          155          160
254 Arg Asp Cys Tyr Ile Cys His Phe Leu Leu His Leu Pro Phe Ser Gly
255          165          170          175
258 Lys Glu Glu Glu Leu Lys Ile Ser Val Ile Asp Leu His Arg Ala Gln
259          180          185          190
262 Leu Arg Thr Arg Val Pro Arg Arg Trp Arg Asp Lys Asp Leu Ile Gly
263          195          200          205
266 Leu Tyr Phe Ser Ser Met Asn Ile Gly Leu Thr Gln Arg Asp Ile Trp
267          210          215          220
270 Arg Phe Met Lys Val Tyr Phe Ala Ala Pro Leu Lys Asp Ile Leu Lys

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271 225          230          235          240
274 Gln Glu Gln Gly Leu Leu Ser Gln Ala Glu Ala Lys Ala Thr Lys Ile
275          245          250          255
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279          260          265
282 <210> SEQ ID NO: 4
283 <211> LENGTH: 374
284 <212> TYPE: PRT
285 <213> ORGANISM: Escherichia coli
287 <400> SEQUENCE: 4
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293 Gln Arg Asp Phe Met Arg Ile Ala Gln Thr Val Ala Ala Arg Gly His
294          20          25          30
297 His Val Arg Val Tyr Thr Gln Ser Trp Glu Gly Glu Cys Pro Asp Val
298          35          40          45
301 Phe Glu Leu Ile Lys Val Pro Val Lys Ser His Thr Asn His Gly Arg
302          50          55          60
305 Asn Ala Glu Tyr Phe Ala Trp Val Gln Lys His Leu Arg Glu His Pro
306 65          70          75          80
309 Val Asp Lys Val Val Gly Phe Asn Lys Met Pro Gly Leu Asp Val Tyr
310          85          90          95
313 Tyr Ala Ala Asp Val Cys Tyr Ala Glu Lys Val Ala Gln Glu Lys Gly
314          100         105         110
317 Phe Phe Tyr Arg Leu Thr Ser Arg Tyr Arg His Tyr Ala Ala Phe Glu
318          115         120         125
321 Arg Ala Thr Phe Glu Gln Gly Lys Pro Thr Gln Leu Leu Met Leu Thr
322          130         135         140
325 Asp Lys Gln Ile Ala Asp Phe Gln Lys His Tyr Gln Thr Glu Ala Glu
326 145         150         155         160
329 Arg Phe His Ile Leu Pro Pro Gly Ile Tyr Pro Asp Arg Lys Tyr Ser
330          165         170         175
333 Gln Gln Pro Ala Asn Ser Arg Glu Ile Phe Arg Lys Lys Asn Gly Ile
334          180         185         190
337 Thr Glu Gln Gln Tyr Leu Leu Leu Gln Val Gly Ser Asp Phe Thr Arg
338          195         200         205
341 Lys Gly Val Asp Arg Ser Ile Glu Ala Leu Ala Ser Leu Pro Asp Ser
342          210         215         220
345 Leu Arg His Asn Thr Leu Leu Tyr Val Val Gly Gln Asp Lys Pro Arg
346 225         230         235         240
349 Lys Phe Glu Ala Leu Ala Glu Lys Arg Gly Val Arg Ser Asn Val His
350          245         250         255
353 Phe Phe Ser Gly Arg Asn Asp Val Ser Glu Leu Met Ala Ala Ala Asp
354          260         265         270
357 Leu Leu Leu His Pro Ala Tyr Gln Glu Ala Ala Gly Ile Val Leu Leu
358          275         280         285
361 Glu Ala Ile Thr Ala Gly Leu Pro Val Leu Thr Thr Ala Val Cys Gly
362          290         295         300
365 Tyr Ala His Tyr Ile Val Asp Ala Asn Cys Gly Glu Ala Ile Ala Glu

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366 305          310          315          320
369 Pro Phe Arg Gln Glu Thr Leu Asn Glu Ile Leu Arg Lys Ala Leu Thr
370          325          330          335
373 Gln Ser Ser Leu Arg Gln Ala Trp Ala Glu Asn Ala Arg His Tyr Ala
374          340          345          350
377 Asp Thr Gln Asp Leu Tyr Ser Leu Pro Glu Lys Ala Ala Asp Ile Ile
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382      370
385 <210> SEQ ID NO: 5
386 <211> LENGTH: 348
387 <212> TYPE: PRT
388 <213> ORGANISM: Escherichia coli
390 <400> SEQUENCE: 5
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396 Ser Gln Ser Leu Tyr Arg Thr Leu Gln Ala Arg Tyr Pro Gln Ala Ile
397          20          25          30
400 Ile Asp Val Met Ala Pro Ala Trp Cys Arg Pro Leu Leu Ser Arg Met
401          35          40          45
404 Pro Glu Val Asn Glu Ala Ile Pro Met Pro Leu Gly His Gly Ala Leu
405          50          55          60
408 Glu Ile Gly Glu Arg Arg Lys Leu Gly His Ser Leu Arg Glu Lys Arg
409 65          70          75          80
412 Tyr Asp Arg Ala Tyr Val Leu Pro Asn Ser Phe Lys Ser Ala Leu Val
413          85          90          95
416 Pro Phe Phe Ala Gly Ile Pro His Arg Thr Gly Trp Arg Gly Glu Met
417          100          105          110
420 Arg Tyr Gly Leu Leu Asn Asp Val Arg Val Leu Asp Lys Glu Ala Trp
421          115          120          125
424 Pro Leu Met Val Glu Arg Tyr Ile Ala Leu Ala Tyr Asp Lys Gly Ile
425          130          135          140
428 Met Arg Thr Ala Gln Asp Leu Pro Gln Pro Leu Leu Trp Pro Gln Leu
429 145          150          155          160
432 Gln Val Ser Glu Gly Glu Lys Ser Tyr Thr Cys Asn Gln Phe Ser Leu
433          165          170          175
436 Ser Ser Glu Arg Pro Met Ile Gly Phe Cys Pro Gly Ala Glu Phe Gly
437          180          185          190
440 Pro Ala Lys Arg Trp Pro His Tyr His Tyr Ala Glu Leu Ala Lys Gln
441          195          200          205
444 Leu Ile Asp Glu Gly Tyr Gln Val Val Leu Phe Gly Ser Ala Lys Asp
445          210          215          220
448 His Glu Ala Gly Asn Glu Ile Leu Ala Ala Leu Asn Thr Glu Gln Gln
449 225          230          235          240
452 Ala Trp Cys Arg Asn Leu Ala Gly Glu Thr Gln Leu Asp Gln Ala Val
453          245          250          255
456 Ile Leu Ile Ala Ala Cys Lys Ala Ile Val Thr Asn Asp Ser Gly Leu
457          260          265          270
460 Met His Val Ala Ala Ala Leu Asn Arg Pro Leu Val Ala Leu Tyr Gly

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/520,820

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date